



ARCHITECTURE & ENGINEERING DIVISION

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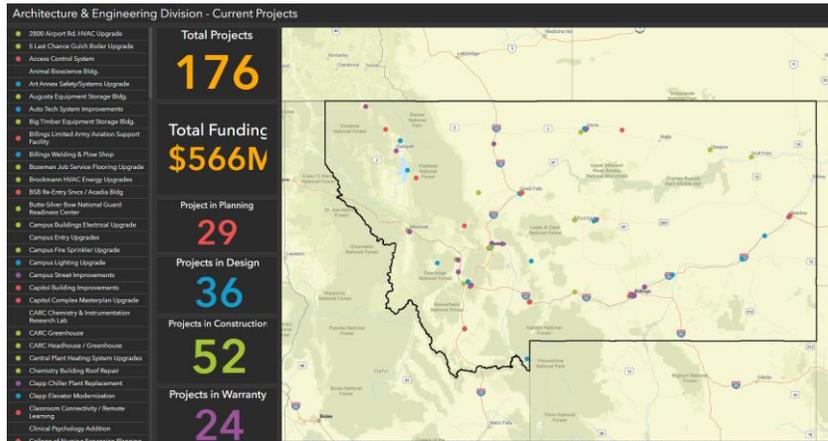
January 2023

INTERACTIVE MAPS & FCAs

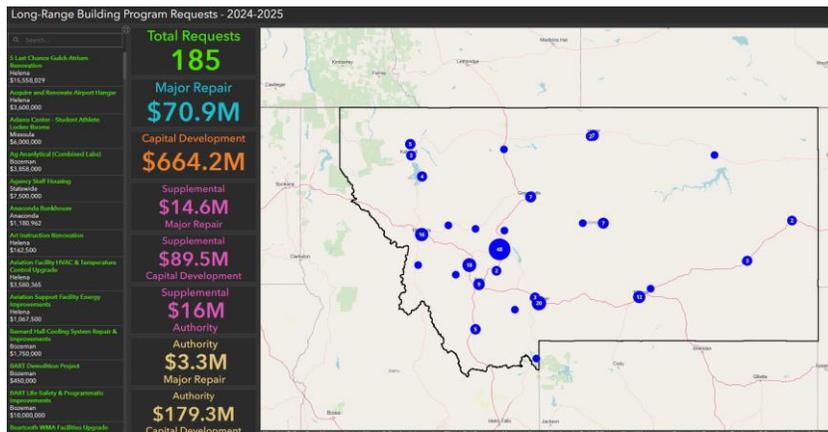


- Interactive Project Mapping @ architecture.mt.gov

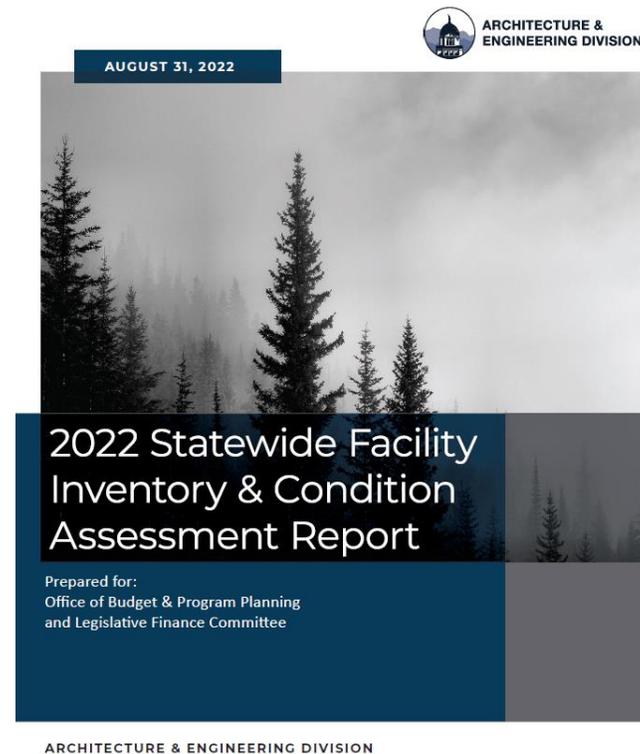
Active Projects



Proposed Projects



- Facility Condition Assessments



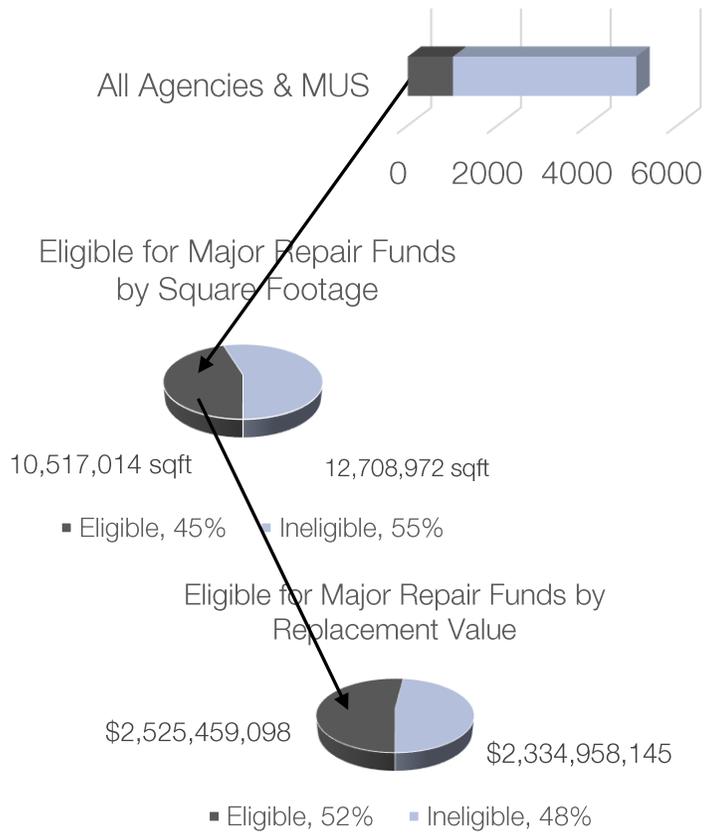
TOTAL STATEWIDE INVENTORY

AGENCY	ALL BUILDINGS			MAJOR REPAIR ACCOUNT FUNDING LRBP-ELIGIBLE BUILDINGS			FACILITY ASSESSMENT REQUIRED BUILDINGS > \$150,000		
	BLDGS	AREA	CRV	BLDGS	AREA	CRV	BLDGS	AREA	CRV
Montana School for the Deaf & Blind	14	165,423	\$26,175,778	14	165,243	\$26,175,778	9	164,537	\$26,152,692
Department of Administration	52	1,231,431	\$395,768,630	0			0		
Department of Agriculture	1	7,888	\$658,180	1	7,888	\$658,180	1	7,888	\$658,180
Department of Commerce	6	160,576	\$36,391,647	0			0		
Department of Corrections	138	1,164,289	\$247,246,806	94	930,716	\$225,541,711	53	880,229	\$223,592,811
Department of Environmental Quality	55	372,972	\$3,625,562	0			0		
Department of Fish, Wildlife & Parks	1,297	898,051	\$98,455,898	0			0		
Department of Justice	83	286,557	\$43,617,300	37	275,961	\$39,141,525	28	263,721	\$38,697,740
Department of Labor & Industry	13	85,516	\$12,650,047	0			0		
Department of Military Affairs	76	710,528	\$137,202,444	50	626,432	\$130,039,378	33	621,904	\$129,828,151
Department of Natural Resources	179	303,581	\$39,843,399	148	246,395	\$22,650,245	37	158,958	\$18,949,475
Department of Revenue	1	108,258	\$8,674,248	0			0		
Department of Transportation	1,510	1,973,803	\$247,734,468	0			0		
Montana Heritage Commission	253	193,888	\$38,959,167	0			0		
Montana Historical Society	2	12,839	\$6,940,564	0			0		
Office of Public Instruction	31	27,312	\$757,411	31	27,312	\$757,411	0		
Public Health & Human Services	85	673,820	\$148,734,583	65	453,941	\$87,812,957	29	407,985	\$85,732,426
State Fund	1	117,203	\$35,576,757	0			0		
Montana State University	757	8,228,678	\$1,836,377,241	413	4,310,282	\$1,082,020,800	210	4,168,071	\$1,074,204,311
University of Montana	540	6,503,373	\$1,495,027,111	154	3,472,664	\$910,661,113	104	3,431,678	\$907,892,256
TOTALS:	5,094	23,225,986	\$4,860,417,243	1007	10,516,834	\$2,525,459,098	504	10,104,971	\$2,505,708,043

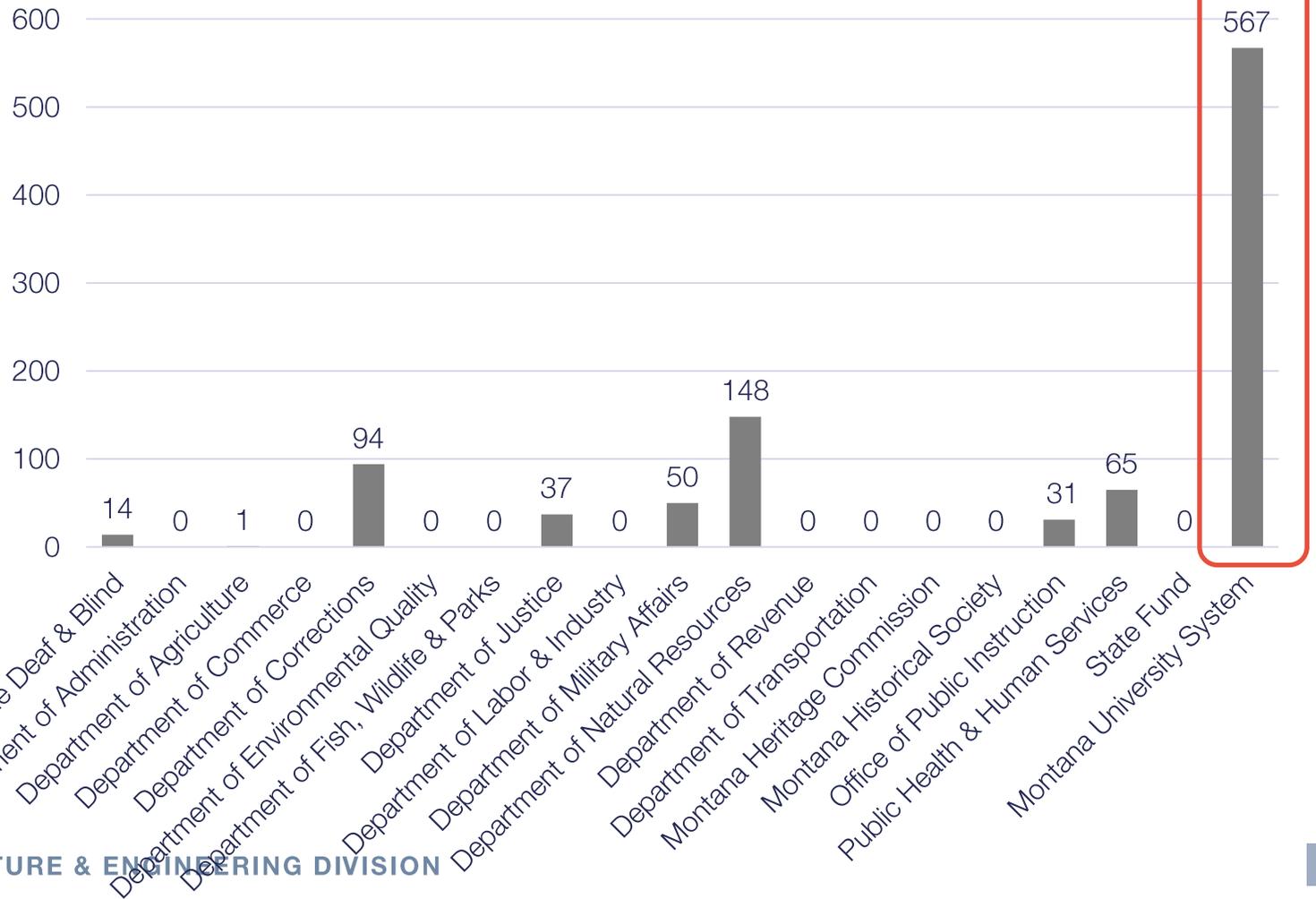


LRBP-Eligible Inventory for Major Repair \$

Total # of LRBP Funding
"Eligible" Buildings: 1,007

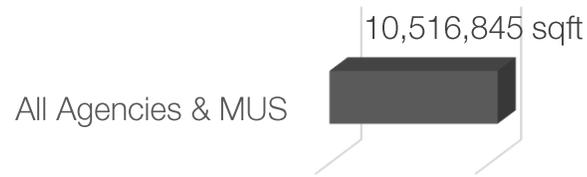


1,007 LRBP-Eligible Buildings by Agency:

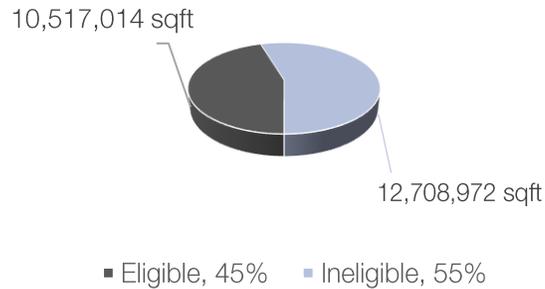


LRBP-Eligible Inventory for Major Repair \$

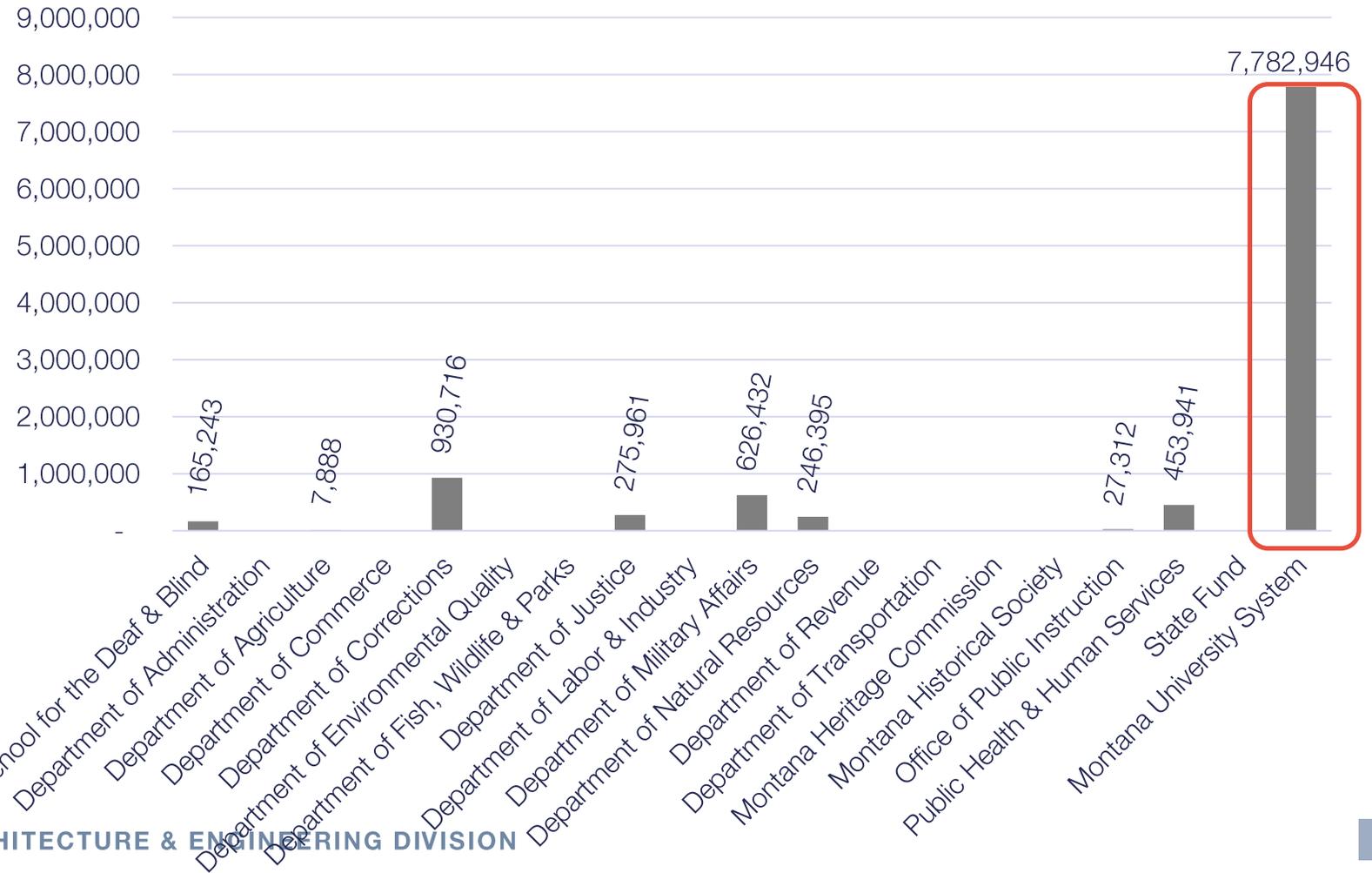
Square Feet of LRBP-Eligible Buildings:



Eligible for Major Repair Funds by Square Footage

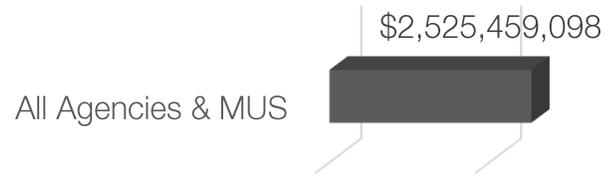


Sqft of LRBP-Eligible Buildings by Agency:

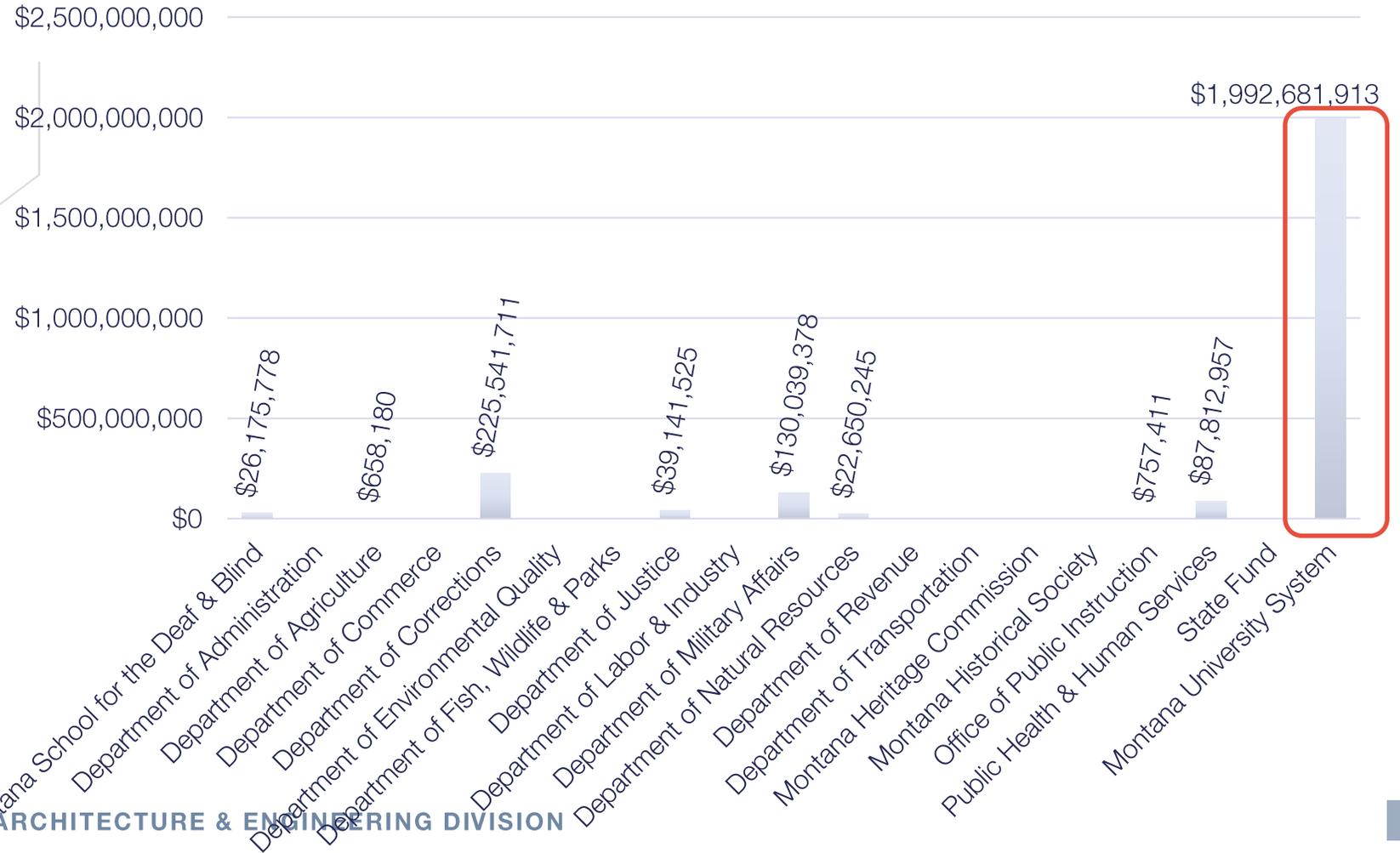


LRBP-Eligible Inventory for Major Repair \$

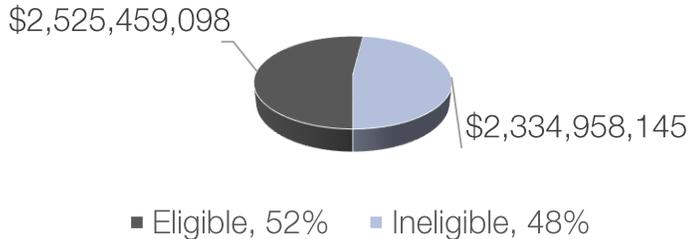
CRV of LRBP-Eligible Buildings:



CRV of LRBP-Eligible Buildings by Agency:



Eligible for Major Repair Funds by Replacement Value



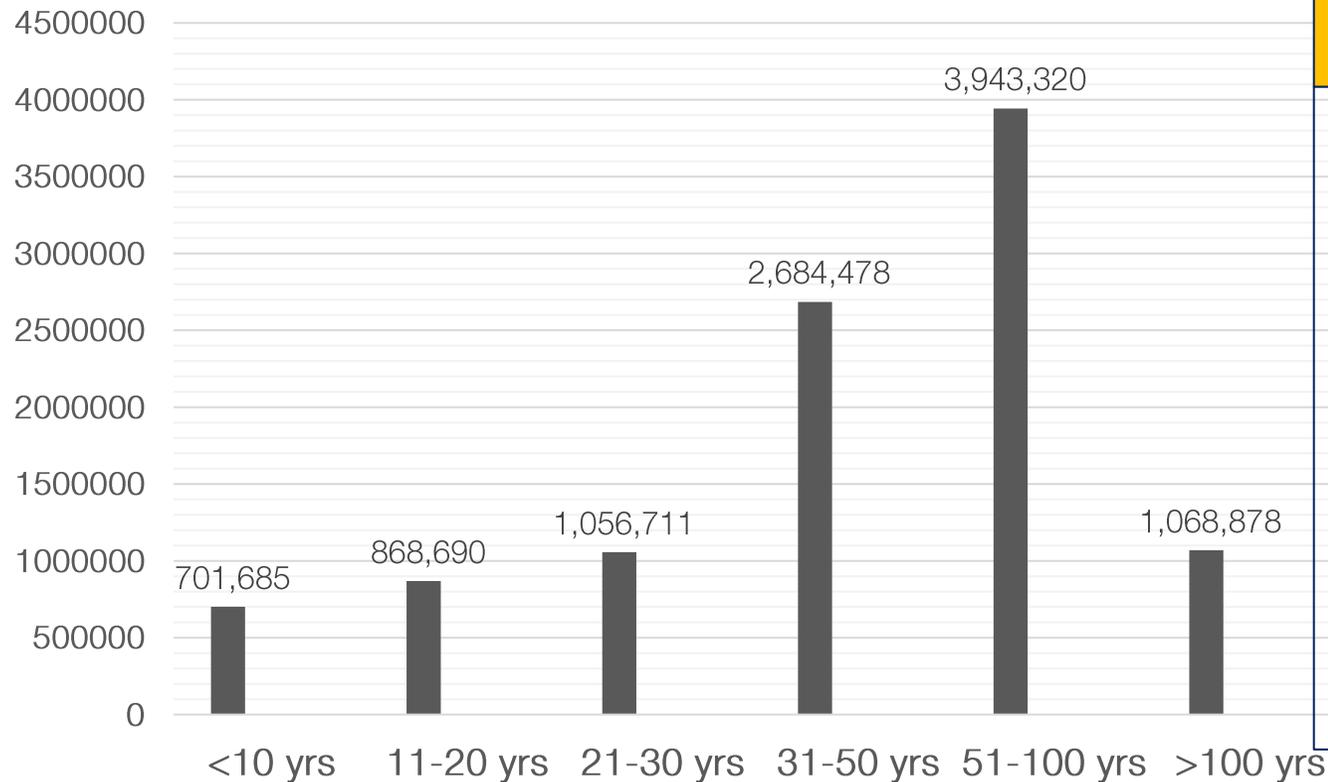
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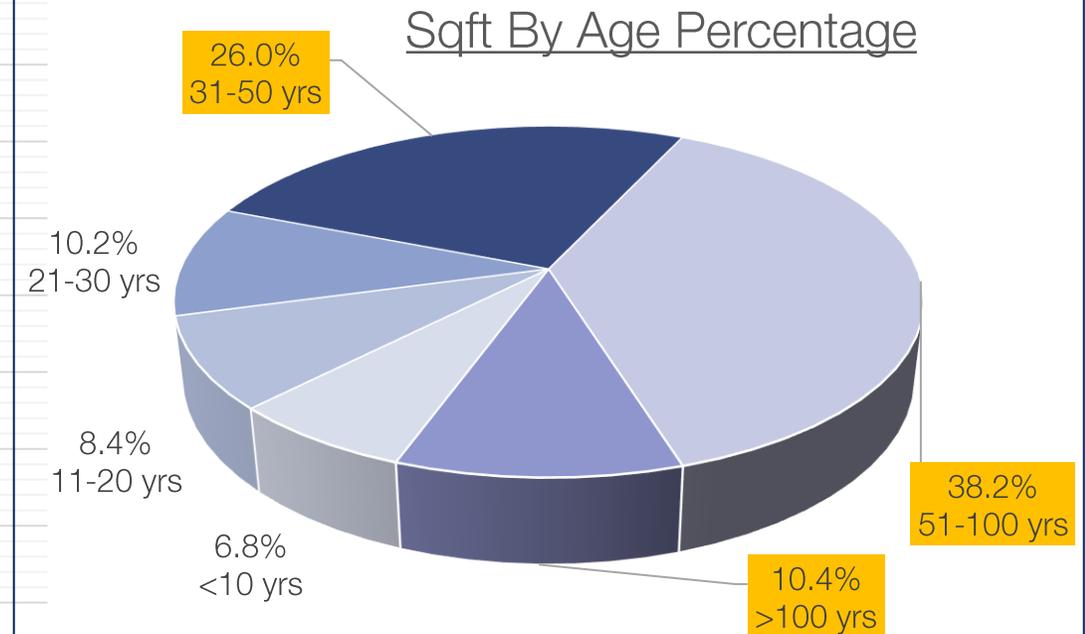


Aging 504 FCA MR LRBP-Eligible Inventory:

Age of the 504 FCA-required
10.1M Sqft

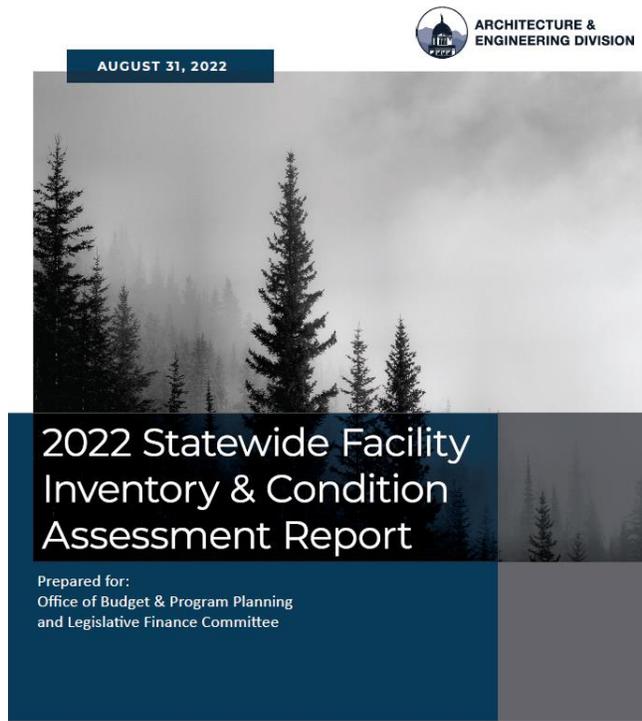


Buildings are designed for 30-50-year life span.
1/2 the square footage has exceeded its life.
Another 1/4 is fast approaching this limit.



FCA & the Long-Range Building Program

- Facility Condition Assessments, 17-7-202 MCA



TOTAL INVENTORY	LRBP-ELIGIBLE INVENTORY	REQUIRED ASSESSMENT INVENTORY
5,094	1,007	504
STATE-OWNED BUILDINGS <small>An increase of 144 buildings (2.84%) since 2020*</small>	LRBP-ELIGIBLE BUILDINGS <small>A decrease of 14 buildings (1.37%) since 2020*</small>	BUILDINGS REQUIRING ASSESSMENTS <small>An increase of 8 buildings (1.6%) since 2020</small>
23,225,986	10,517,014	10,104,971
TOTAL AREA (SQ FT) <small>An increase of 567,010 square feet (2.44%) since 2020</small>	LRBP-ELIGIBLE AREA (SQ FT) <small>A increase of 54,216 square feet (0.5%) since 2020</small>	AREA REQUIRING ASSESSMENTS (SQ FT) <small>An increase of 135,847 square feet (1.34%) since 2020</small>
\$4,860,417,243	\$2,525,459,098	\$2,505,708,043
TOTAL REPLACEMENT VAULE <small>An increase of \$645,347,122 (13.28%) since 2020</small>	LRBP-ELIGIBLE REPLACEMENT VALUE <small>An increase of \$296,066,321 (11.72%) since 2020</small>	ASSESSMENT REPLACEMENT VALUE <small>An increase of \$297,099,782 (11.86%) since 2020</small>

Major Repair Minimum Funding \$30,305,509
Total Deferred Maintenance Backlog \$1,473,603,270
Number of Buildings Requiring Assessments: 504
Number of Buildings Assessed: 299
Area of Buildings Requiring Assessments: 10,104,971 SQ FT
Area Assessed: 7,115,906 SQ FT

Deferred Maintenance is a debt/liability that accumulates over time due to a lack of regular and timely funding of major repairs, replacements, upgrades or renovations.

Solutions:

- Continue funding Major Repairs at a substantial level over time; and,
- Fund major renovations and new Capital Development projects on a consistent basis

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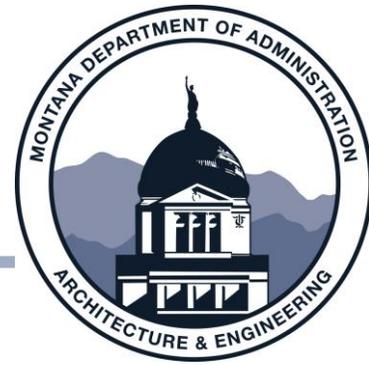




Here's Where DOA/A&E Started:

- Total 2025 Biennium Requests Received, July 2022

Project Type	Major Repair	Capital Development	State Special Revenue	Federal Special Revenue	Authority Only	Totals	# of Project Types
SUPPLEMENTAL MR	\$11,650,861	\$11,650,861	\$2,907,039			\$14,557,900	17
SUPPLEMENTAL CD		\$61,525,656	\$30,615,350	\$9,751,180		\$101,892,186	23
SUPPLEMENTAL AO					\$16,000,000	\$16,000,000	3
MAJOR REPAIR	\$140,729,157			\$9,794,956	\$1,800,000	\$152,324,113	147
MAJOR REPAIR CLG			\$3,221,021			\$3,221,021	5
Capital Land Grant			\$23,042,853			\$23,042,853	16
CAPITAL DEVELOPMENT		\$1,271,149,898	\$76,699,830	\$44,396,615	\$29,000,000	\$1,421,246,743	62
FWP			\$32,291,904	\$20,064,742	\$1,333,234	\$53,689,880	15
AUTHORITY					\$14,200,000	\$14,200,000	2
AUTHORITY CD					\$204,290,000	\$204,290,000	11
AUTHORITY MR					\$3,995,000	\$3,995,000	4
TOTAL REQUESTS:	\$152,380,018	\$1,344,326,415	\$168,777,997	\$84,007,493	\$270,618,234	\$2,008,459,696	305



How The LRBP Comes Together:

- Project Prioritization Methodology:
 - Step #1 – Categorized By Statute Definition, 17-7-201 MCA
 - Step #2 – Segregated By Agency
 - Step #3 – Itemized by Fund Type

MAJOR REPAIR -

- Renovation, alteration, replacement, or repair project(s) with a total cost of less than \$2.5 million.
- A new facility with a total construction cost of less than \$250,000.

CAPITAL DEVELOPMENT -

- Renovation, construction, alteration, replacement, or repair project(s) with a total cost of more than \$2.5 million.
- A new facility with a total construction cost of more than \$250,000.





How The LRBP Is Assembled (cont'd)

- Project Prioritization Methodology – Step #4 has four parts

1st, by Category –

- Health / Life Safety
- Damage / Wear-out / Failure
- Codes / Standards
- Energy Efficiency
- Improve / Replace Existing
- Enhancements / Aesthetics

2nd, by Condition –

- Very Good
- Good
- Fair
- Poor
- Unacceptable

3rd, by Mission Risk –

- High
- Medium
- Low
- None

4th, by Mission Need –

- Critical
- Significant
- Relevant
- Moderate
- Low
- None

* Applies to existing buildings and infrastructure; larger major repair projects and new capital facilities may have other programmatic drivers and are identified in the Capital Development listing





How The LRBP Is Assembled (cont'd)

1st, by Category –

HEALTH/LIFE SAFETY Conditions that pose an immediate or impending danger to life, limb, personal health, or property if not corrected.

DAMAGE/WEAR-OUT / FAILURE Replacement of components that have extended beyond their life expectancy. Building elements with potential for serious damage to the building or the building components if not corrected. Failure of existing building components.

CODES/STANDARDS Building codes and/or institutional construction standards were not met during construction or renovation, or existing conditions do not meet current standards. Condition may or may not represent an urgent situation if deficiencies are not corrected.

2nd, by Condition –

ENERGY EFFICIENCY Upgrades to reduce energy consumption.

IMPROVE/REPLACE EXISTING Correcting deficiencies to increase the comfort level of the building.

ENHANCEMENTS/AESTHETICS Renovation or replacement of building components to improve appearance.

VERY GOOD No defect; appearance is as new. No improvements needed.

GOOD Minor improvement required. Minor system deficiencies with only marginal effect on system functions. Asset exhibits superficial wear and tear, minor defects, minor signs of deterioration to surface finishes; but does not require major maintenance; no major defects exist.

FAIR Moderate improvement required. Deficiencies cause intermittent problems or affect multiple users. Uncorrected, will result in premature failure or accelerated deterioration of component or system. Asset is in average condition; deteriorated surfaces require attention; services are functional, but require attention. Backlog of maintenance work exists.

POOR Major improvement required. Critical deficiencies affecting function, health or safety. Asset is in poor condition; deteriorated surfaces require significant attention; services are functional but failing often; significant backlog maintenance work exists.

3rd, by Mission Risk –

UNACCEPTABLE Complete failure. Asset is not performing; significant number of users affected; serious structural problems; general deterioration; significant number of users affected.

Rate how relevant this project is to the agency's mission. (See "Provide your agency's mission statement" under the Project Narrative section of the application.)

4th, by Mission Need –

Rate how important this project is to the agency's mission. (See "Provide your agency's mission statement" under the Project Narrative section of the application.)

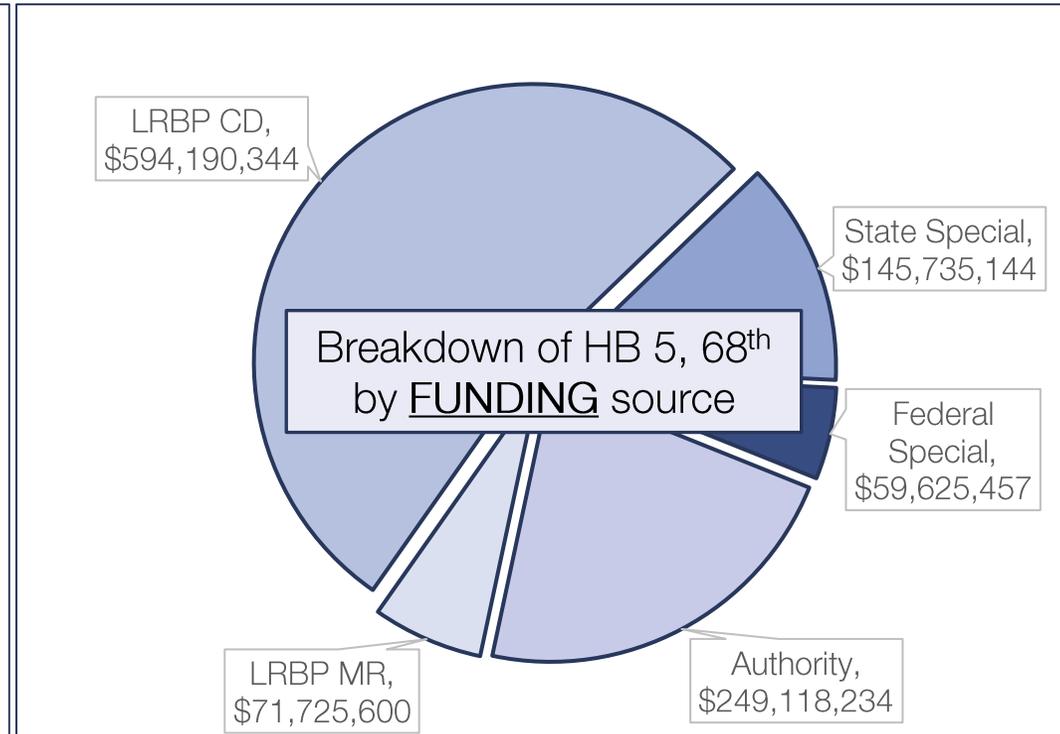
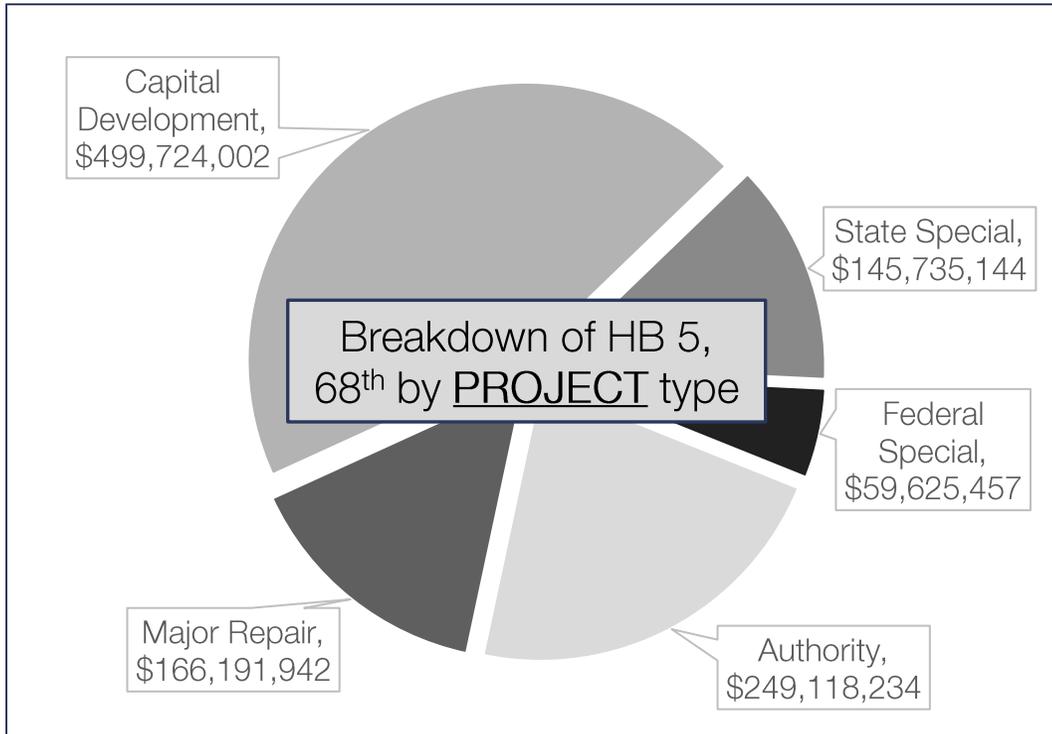


LRBP – HB 5 Breakdown



DOA/A&E LRBP responsibility for majority of HB 5
 Other Agency appropriations/authorizations in HB 5

= \$1,034,755,779
 = \$85,639,000
 Total HB 5 = \$1,120,294,779



2022 National Perspectives on Inflation:



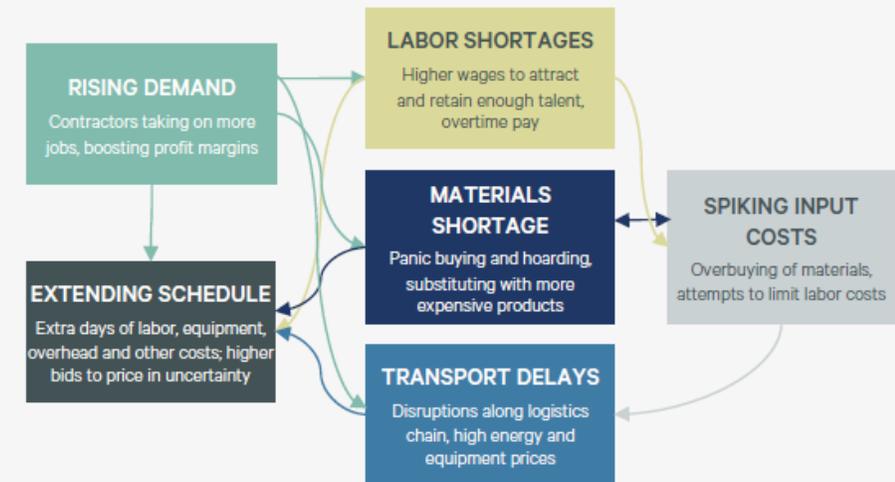
AGC Construction Inflation Alert, December 2022

“In any case, the cost of construction materials and labor does not generally move in sync with the overall economy.

In short, owners should not assume that delaying projects will enable them to avoid volatility and disruptions in construction costs, delivery times, and labor supply, even if the economy slows significantly.”

CBRE Research, July 2022

FIGURE 1: Pandemic impacts on interconnected cost drivers



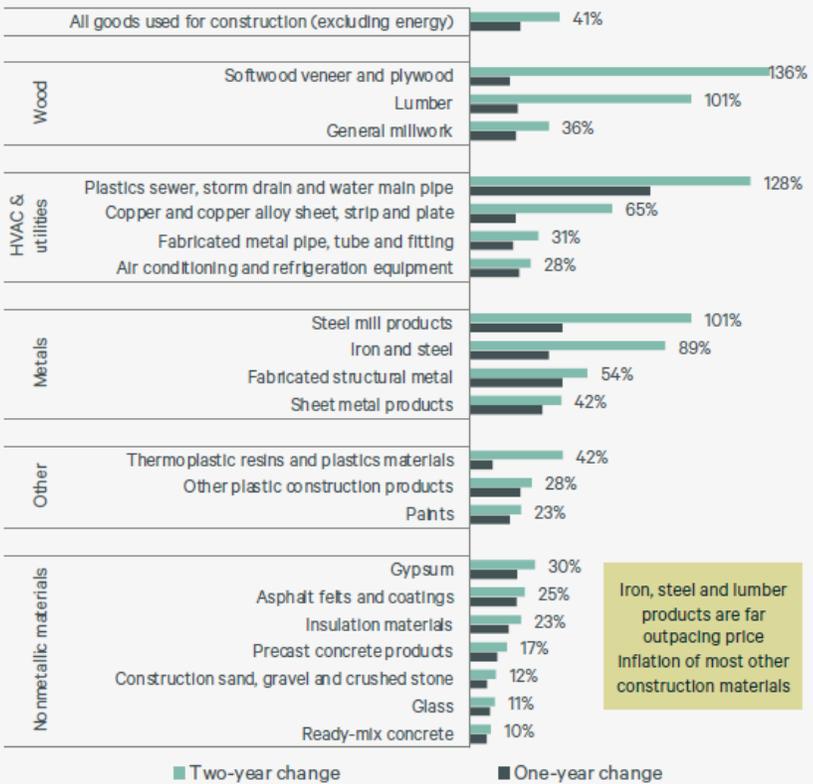
Source: CBRE Strategic Investment Consulting, April 2022.





Materials Escalation

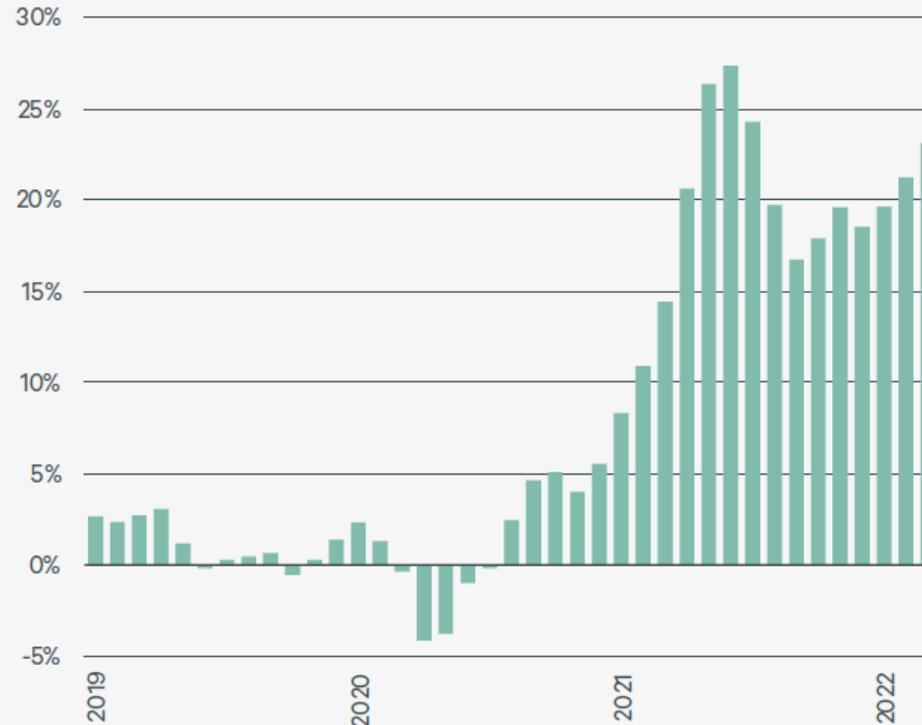
FIGURE 37: Price inflation for select construction commodities, March 2020-March 2022



Iron, steel and lumber products are far outpacing price inflation of most other construction materials

Source: U.S. Bureau of Labor Statistics, CBRE Strategic Investment Consulting April 2022.

FIGURE 35: Producer Price Index: inputs to construction, year-over-year change



Note: Latest data as of March 2022.

Source: Bureau of Labor Statistics, Producer Price Index, CBRE Strategic Investment Consulting, April 2022.



Supply Chain & Delays Escalation

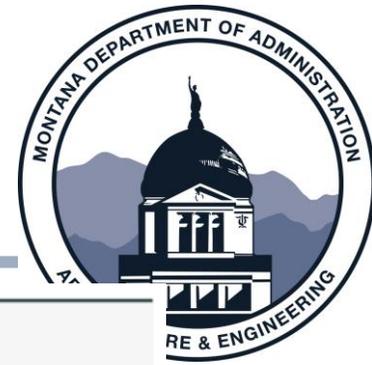


FIGURE 15: Typical lead times for key materials

+40 weeks
Roofing insulation

Lead times for roofing insulation (along with other roofing materials), are currently among the longest in the entire construction industry.

+36 weeks
HVAC equipment

Lockdowns in China have significantly reduced manufacturing output for HVAC equipment, while hot weather continues to boost demand. Semiconductor shortages are also contributing to delays.

+18 weeks
Wood doors & frames

Shutdowns and strained labor pools in manufacturing and shipping have led to a major backlog in the supply of wood doors, as well as hardware and hollow metal door frames.

Material	Current lead time	Two-year change
Paint	2-3 weeks	+200%
Steel beams & decking	10-14 weeks	+75%
Drywall & metal studs	14-16 weeks	+600%
Lighting & controls	14-20 weeks	+100%
Wood doors & frames	18-20 weeks	+233%
Open web joists	18-30 weeks	+125%
Aluminum storefront glazing	16-32 weeks	+300%
Appliances	20-30 weeks	+400%
Electrical panels	30-40 weeks	+433%
Roofing membranes	35-45 weeks	+800%
HVAC equipment	36-50 weeks	+250%
Roofing insulation	40-50 weeks	+667%

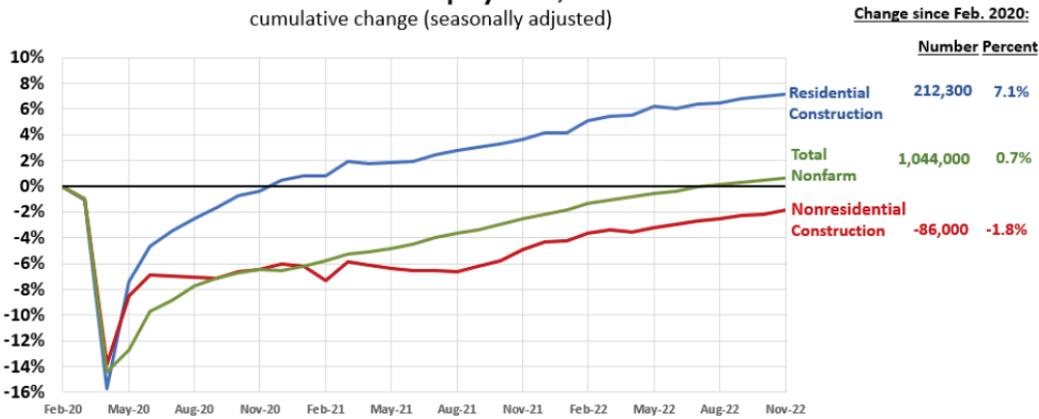
Note: Lead times reflect aggregated information from multiple major general contracting firms and are current as of April-May 2022.
Source: CBRE Econometric Advisors, CBRE Strategic Investment Consulting, April 2022.



Labor Escalation

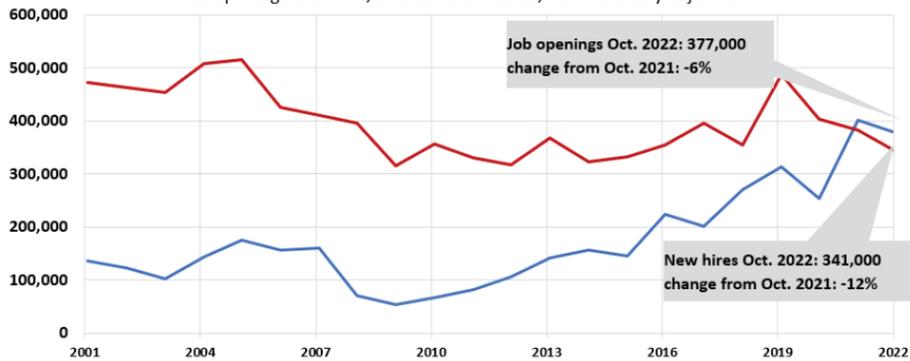


Total nonfarm & construction employment, Feb. 2020–Nov. 2022
cumulative change (seasonally adjusted)



Source: BLS current employment statistics, <https://www.bls.gov/ces/>

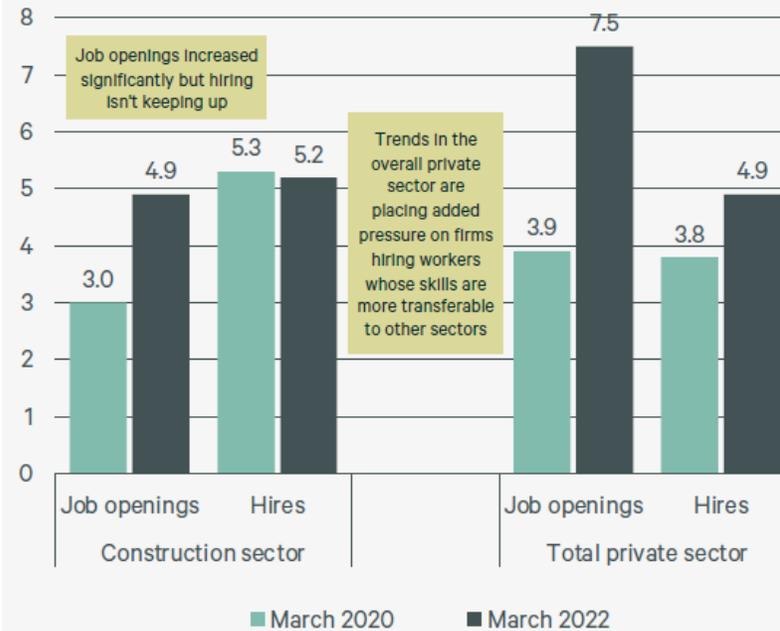
Construction job openings & new hires
Job openings and hires, Oct. 2001–Oct. 2022, not seasonally adjusted



Source: Source: Bureau of Labor Statistics, www.bls.gov/jlt/JOLTS

FIGURE 25: Job opening and hiring rates, construction sector vs. total private employment

of openings/hires per 100 jobs

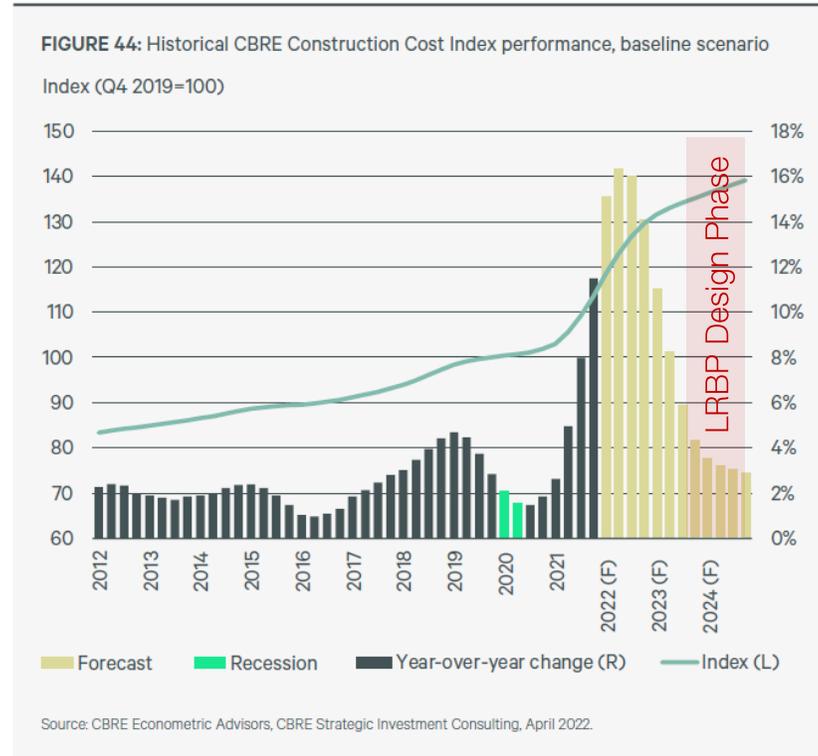
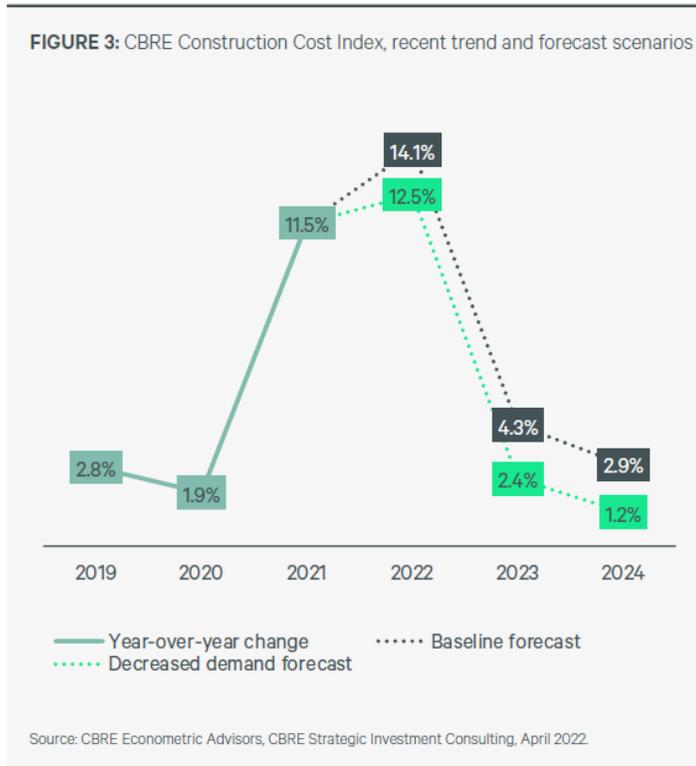


Note: Job opening and hiring rates are calculated by dividing the number of job openings (or hires) by the sum of employment plus job openings (or hires) then multiplying by 100.

Source: Bureau of Labor Statistics, Job Openings and Labor Turnover Survey (JOLTS), April 2022.



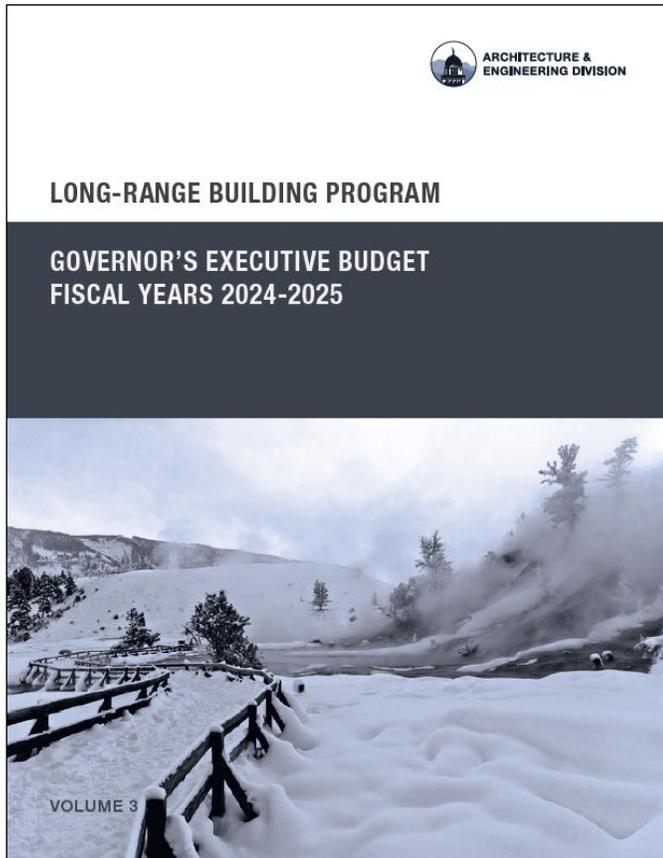
But, the LRBP is strategically positioned



Appropriating the Governor's proposed LRBP now successfully positions LRBP projects to take advantage forecasted improvements in construction pricing.

Back To The Final LRBP Product!

LRBP Book is also available @ architecture.mt.gov



LONG-RANGE BUILDING PROGRAM

11

SUMMARY OF RECOMMENDED PROJECTS STATEWIDE BY AGENCY 2024-2025

Agency	Major Repair	Capital Development	State Special	Federal Special	Authority Only	Total
ADMINISTRATION	100,374,487	5,908,145	3,221,021		5,000,000	114,503,653
CORRECTIONS	9,400,000	176,350,000			1,390,000	187,140,000
ENVIRONMENTAL QUALITY					3,700,000	3,700,000
FISH, WILDLIFE & PARKS			81,191,334	23,735,142	6,333,234	111,259,710
JUSTICE	3,015,000					3,015,000
LABOR & INDUSTRY	1,000,000	5,767,880				6,767,880
LIVESTOCK		2,200,000				2,200,000
MILITARY AFFAIRS	2,588,970	31,524,741		35,640,315		69,754,026
NATURAL RESOURCES & CONSERVATION	1,402,524	8,338,186				9,740,710
PUBLIC HEALTH & HUMAN SERVICES	4,325,000	134,873,000	9,907,039			149,105,039
REVENUE			14,315,750			14,315,750
SCHOOL FOR THE DEAF & BLIND	1,480,491					1,480,491
TRANSPORTATION		9,000,000	37,100,000	250,000		46,350,000
UNIVERSITY SYSTEM	42,605,470	125,762,050			232,695,000	401,062,520
TOTALS	166,191,942	499,724,002	145,735,144	59,625,457	249,118,234	1,120,394,779

MAJOR REPAIR PROJECTS TABLE F-3 SUMMARY

	FUNDING SOURCE				Total
	LRBP MR	State Special	Federal Special	Authority Only	
SUPPLEMENTAL MAJOR REPAIR PROJECTS	11,850,861	2,907,039			14,557,900
MAJOR REPAIR PROJECTS	60,074,739		2,028,643	1,200,000	63,303,382
DEPT. OF ADMINISTRATION		3,221,021			3,221,021
DEPT. OF MILITARY AFFAIRS			5,884,277		5,884,277
AUTHORITY ONLY				3,295,000	3,295,000
TOTAL	71,725,600	6,128,060	7,912,920	4,495,000	90,261,580

CAPITAL DEVELOPMENT PROJECTS TABLE F-5 SUMMARY

	FUNDING SOURCE				Total
	LRBP CD	State Special	Federal Special	Authority Only	
SUPPLEMENTAL CAPITAL DEVELOPMENT PROJECTS	49,143,606	30,615,350	9,751,180	16,000,000	105,510,136
CAPITAL DEVELOPMENT PROJECTS	545,046,738		2,542,248	18,000,000	565,588,986
DEPT. OF TRANSPORTATION		37,100,000			37,100,000
DEPT. OF FISH, WILDLIFE & PARKS		71,891,734	22,564,742	6,333,234	100,789,710
DEPT. OF MILITARY AFFAIRS			16,854,367		16,854,367
AUTHORITY ONLY				204,290,000	204,290,000
TOTAL	594,190,344	139,607,084	51,712,537	244,623,234	1,030,133,199



How Our Presentations Are Formatted:

- MR & CD INFLATION/ESCALATION
- MAJOR REPAIR
- CAPITAL DEVELOPMENT



EXPLAINING LRBP SUPPLEMENTALS:

- What These Are Not:
 - NOT HB 3 Supplemental Requests!
 - NOT Contractor Overruns!
 - NOT Government Obligations!
- What These Are:
 - Primarily, Inflationary Escalations to Complete Prior Session Approved Scope
 - Inflationary impacts varied by project type
 - Typically, between 25% to 50%; some >50%
 - Some Scope Adjustments
 - A Few Estimate Busts from 67th HB 5; done during late 2020 COVID lockdown
 - Combinations of the Above





**Now, for HB 5 & the
Montana University
System Project
Proposals . . .**